DEPARTMENT OF THE TREASURY

BUREAU OF ENGRAVING AND PRINTING

WASHINGTON, D. C. 20228

ENVIRONMENTAL ASSESSMENT

FOR

WESTERN CURRENCY FACILITY EXPANSION

This environmental assessment was prepared in accordance with the Department of Treasury Directive 75-02, and is in compliance with the National Environmental Policy Act of 1969, as amended, and the Council on Environmental Quality regulations dated November 29, 1978 (40 CFR 1500-1508).

This environmental assessment serves as a concise public document to briefly provide sufficient evidence and analysis for determining the need to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

The attached assessment concisely describes the proposed action, the need for the proposal, the alternatives, the environmental impact of each alternative, a statement of environmental significance, and a list of the agencies/persons consulted during the assessment.

Recommended:

William H. Gillers
Associate Director (Environment and Safety)
Bureau Environmental Quality Officer

Approved:

Thomas A. Ferguson
Director

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WASHINGTON, D.C. 20228

DRAFT

FINDING OF NO SIGNIFICANT IMPACT

FOR

WESTERN CURRENCY FACILITY EXPANSION

This action has been thoroughly reviewed by the Bureau of Engraving and Printing and it has been determined, by the undersigned, that this action will have no significant effect on the human environment.

This finding of no significant impact is based on the attached environmental assessment conducted on behalf of the Bureau of Engraving and Printing by the Jupiter Corporation. The results of this assessment provide sufficient evidence for the determination that an environmental impact statement is not required.

Copies of this assessment, or additional information pertaining to this action, may be obtained by contacting the Bureau of Engraving and Printing's Office of Environment, Safety, and Occupational Health Programs at (202) 874-2075.

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Draft

Environmental Assessment

Proposed
Western Currency Facility Expansion

U.S. Treasury Department
Bureau of Engraving and Printing
Fort Worth, Texas

February 2001

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ABBREVIATIONS AND ACRONYMS

BACT	Best Available Control Technology
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CF	Community Facilities
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COPE	Currency Overprinting and Packaging Equipment
D.C.	District of Columbia
EA	Environmental Assessment
EPA	U.S. Environmental Protection Agency
HCl	Hydrochloric Acid
IP	Industrial Park
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Policy Act
NexGen	Next Generation
NO_x	Oxides of Nitrogen
PEL	Permissible Exposure Level
PTE	Potential to Emit
PVC	Polyvinyl Chloride
SIP	State Implementation Plan
Simultan	Giori Simultaneous Perfecting Offset Printing Press
TAC	Texas Administrative Code
TNRCC	Texas Natural Resources Conservation Commission
TSP	Total Suspended Particulates
U.S.	United States
VOC	Volatile Organic Compounds
WCF	Western Currency Facility, Bureau of Engraving and Printing, United States Department of the Treasury

1.0 PURPOSE OF AND NEED FOR ACTION

The U.S. Department of the Treasury, Bureau of Engraving and Printing is proposing an expansion of its currency printing facility located at 9000 Blue Mound Road, Fort Worth, Texas. This is one of two such facilities; the other is located in Washington, D.C. To assure an uninterrupted supply of currency, both facilities have full currency printing capability.

The proposed expansion of the Western Currency Facility (WCF) is to provide the necessary space and equipment to implement the Next Generation (NexGen) of currency that will include additional features to deter counterfeiting. A visitor's center is also planned for construction as part of the proposed action.

Throughout history, various measures have been used to thwart counterfeiters, including the creation of the Secret Service by President Abraham Lincoln. Measures to prevent counterfeiting have been developed and incorporated into U.S. currency at various times throughout our country's history. The proposed NexGen currency will provide the necessary deterrence to future counterfeiting attempts.

This Environmental Assessment (EA) addresses the potential environmental impacts related to the proposed action and alternative actions. This EA is prepared in accordance with the National Environmental Policy Act (NEPA) as implemented by the regulations promulgated by the Council on Environmental Quality (CEQ) 40 Code of Federal Regulations (CFR) Parts 1500 – 1508 and U.S. Treasury Directive 75-02, September 25, 1990.

1.1 PROJECT DESCRIPTION

The Bureau of Engraving and Printing's WCF in Fort Worth, Tarrant County, Texas (Figure 1 and Figure 2) has proposed an expansion totaling 140,000 square feet, extending contiguously from the existing building's west wall (Figure 3). The existing WCF covers 640,000 square feet and the expansion will increase its size by 22 percent, providing needed space for two new offset lithographic printing presses, a production support area and related space for equipment, a Visitors Center, and a Transfer Station (Figure 4).

The additional printing presses are necessary for the NexGen counterfeiting deterrent measures to be incorporated into U.S. currency. Those measures are considered necessary by the Bureau of Engraving and Printing to meet their mission to: "serve as the Federal Government's most secure and efficient source of vital national securities." The additional capability is not intended or designed to increase printing capacity. A similar printing capability is being implemented at the Washington, D.C. facility.

The proposed action includes construction of the expanded area. Conventional construction methods commonly used for industrial buildings similar to the existing facility are anticipated. There are no extraordinary requirements in the WCF expansion

design. Construction will be entirely within the WCF's outer perimeter security fence with access strictly controlled.

Provisions to accommodate visitors to the WCF are part of the proposed action. A Visitors Center and a separate Transfer Station with a parking lot would allow visitors to tour the currency printing operations at the facility. Visitors would enter through a separate entrance, park in a designated area, and enter the Transfer Station where they would be directed to small buses that would transport them to the Visitors Center. From the Visitors Center, the visitors would be guided on a designated tour route. The visitors will be directed through a safe, secure area, separate from the production area.

1.2 PROJECT SCOPE

This EA evaluates potential impacts resulting from cumulative effects related to:

- Construction and operation of the proposed 140,000 square foot expansion.
- Operations related to two Giori Simultaneous Perfecting Offset Printing Presses (Simultan, Figure 5).
- Operations related to the Visitors Center and Transfer Station.

The potential environmental consequences of the proposed action and alternatives, including impacts to workers and the local population, are described in Sections 2 and 3**.** The planned WCF expansion is entirely on property owned and operated by the Bureau of Engraving and Printing.

No accommodations presently exist for public visits or tours. The Visitors Center and Transfer Station will be entirely new facilities that will allow visitors to tour the WCF.

1.3 SCOPING

Scoping describes the range and detail of issues covered in the EA. The scope includes public availability of the Draft EA and an opportunity for citizens to contribute applicable comments for incorporation into the Final EA.

The scope is limited to those areas that are either not covered in an earlier EA (Environmental Review: Environmental Information Record, March 1987) completed prior to WCF construction, or have the potential to change over time. The following activities were performed to define the scope of the EA:

- Reviewed the March 1987 EA Report (NEPA documentation) related to the original construction of the WCF to determine which areas were considered to have potential impacts.

- Inspected the existing WCF operations, and examined anticipated operational changes that would result in order to incorporate the additional two new printing presses and the Visitors Center.

- Interviewed supervisors and technical staff at the WCF to obtain information on how the additional printing operations and the Visitors Center and Transfer Station would affect present operations.

- Inspected the WCF grounds to evaluate potential changes in topography, drainage, susceptibility to flooding, and effects on biota, wildlife, traffic, and neighboring communities resulting from the facility expansion.

- Examined existing permits and WCF correspondence with regulatory agencies.

- Discussed the proposed action with stakeholders identified in Report Section 4.0 to obtain their views on the potential impacts.

- Evaluated existing data related to air emissions, waste generation, wastewater treatment, and waste disposal.

1.4 POTENTIALLY SIGNIFICANT ISSUES

Any new sources of air emissions are a potentially significant issue in the Fort Worth area. The U.S. Environmental Protection Agency (EPA) sets limits on designated criteria pollutants in the air anywhere in the U.S. If the amount of any criteria pollutant exceeds the EPA limit, the area is considered noncompliant for that pollutant. Fort Worth exceeds the limit for the ozone criteria pollutant, and is classified as a *serious nonattainment area*.

Volatile organic compounds (VOCs) are one of the contributors to ground level ozone and are regulated in ozone nonattainment areas. In a serious nonattainment area, the Clean Air Act (CAA), and the Texas Natural Resource Conservation Commission (TNRCC) define a *Major Source* as a stationary source that has the potential to emit greater than 50 tons of VOCs per year. The WCF is not considered a major source of VOCs in the area.

The WCF, in its 1999 Emission Report to TNRCC reported that 17.93 tons of VOCs are emitted per year with a maximum allowable emission rate of 43.99 tons of VOCs per year, if the WCF were operated at the maximum TNRCC allowable rate (Attachment A). Since TNRCC exempts selected minor sources of emissions, the actual emissions are slightly more than the 17.93 tons reported. The Table in Section 3.1.1.1 provides an estimate that includes the exempted sources. Although oxides of nitrogen (NO_x) also contribute to ground level ozone, the WCF does not have the potential to produce sufficient NO_x to be significant. Therefore, it is expected that compliance will be attained.

1.5 RELATIONSHIP TO EXISTING NEPA DOCUMENTATION

An EA conforming to required NEPA documentation was completed in March 1987 (Environmental Review: Environmental Information Record, March 1987) before construction and operation of the original facility. The 1987 EA resulted in a Finding of No Significant Impact related to the construction and operations of the WCF. Other than the proposed expansion, no other present actions require NEPA documentation at WCF.

1.6 REQUIRED PERMITS OR LICENSES

The following permits are in effect at the WCF and will be required for continued operations:

- National Pollutant Discharge Elimination System (NPDES) Storm Water Multi-Sector General Permit
  U.S. EPA, Region 6
  1445 Ross Avenue, Suite 1200
  Dallas, TX 75202-2733

- Permit of Regulated Industrial Wastewater Discharges to the Sanitary Sewer
  Permit Number TX0047295 -144
  Pretreatment Services Division
  921 Fournier Street
  Fort Worth, Texas 76102-3456

- Air Permit
  Permit Number 17994
  TNRCC
  P.O. Box 13087
  Austin, TX 78711-3087

Before commencing printing operations with the two new presses, the Air Permit issued by TNRCC will require a permit modification (WCF has submitted an application for a permit amendment). Additionally, building permits are required before starting construction activities.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

Three alternatives are evaluated. Each of the following alternatives has different environmental consequences:

- Alternative 1: No Action – Continue existing printing operations unchanged, without the proposed additional counterfeit deterrence measures; no accommodations for public visits or tours.

- Alternative 2: Proposed Action – Add two new offset lithographic printing presses, incorporate counterfeit deterrence measures; provide accommodations for public visits and tours.

- Alternative 3: Transfer Printing to the Washington, D.C. Facility – Continue to provide printing operations that do not include counterfeit deterrence features at WCF and print the counterfeit deterrence features at the Washington, D.C. facility.

Alternative 1: No Action - The No Action Alternative is to continue WCF printing operations as they presently exist. The WCF would not have the capability to implement the planned additional counterfeiting deterrent features. Additionally, there would continue to be no provisions for public access to the WCF which would deprive the Treasury Department of an excellent opportunity to educate the public about the security features of the currency design.

The planned counterfeit deterrent features are considered necessary to enhance the security of U.S. currency. The No Action Alternative would either not allow the implementation of the proposed additional counterfeiting measures in U.S. currency or the WCF would cease printing U.S. currency. Although there are conceivable scenarios of partial printing operations and transferring partially completed notes between Fort Worth and Washington, D.C., all scenarios are unsatisfactory. For security, the Bureau of Engraving and Printing requires complete currency printing capability at the two separate sites (Washington, D.C. and Fort Worth). The No Action Alternative would make it difficult for BEP to stay ahead of current reprographic techniques that might be used for counterfeiting U.S. currency.

Due to the necessity to implement additional counterfeit deterrence features, the No Action Alternative could force all U.S. currency to be either printed in Washington, D.C., or at another facility that does not presently exist. The Washington, D.C. facility, built in 1914, is currently undergoing a $60,000,000 renovation. Even with this renovation, sufficient space is not available to house the equipment needed for the additional counterfeit deterrence features.

Alternative 2: Preferred Alternative - Upgrade Printing Capability at the Western Currency Facility - The preferred alternative is the proposed action to upgrade printing capability at the WCF. This will allow both the Washington, D.C. facility and the Fort Worth facility to implement the planned counterfeit deterrence features. The separate, independent, currency printing capability provides continued security for the Bureau of Engraving and Printing to produce currency in the event one of the facilities becomes disabled.

The upgraded capability will allow the Bureau of Engraving and Printing to incorporate counterfeiting deterrence measures into U.S. currency that are more difficult to defeat. The availability of developing technology to counterfeiters has historically demanded

ever increasing technological improvements in currency and other printed material of value, hence the necessity for the Bureau of Engraving and Printing to continually implement new countermeasures to deter counterfeiting.

By implementing the proposed action, the WCF would augment its printing capability through the addition of two new Simultan Offset Presses. The additional presses and related equipment and space would be part of a 140,000 square foot expansion of the present WCF. The expanded area would extend contiguously from the existing west wall of the WCF.

A visitors center is included in the proposed expansion project. The visitors center will allow the public to view the manufacture of United States currency. More importantly, the visitors center will provide a venue for the Department of Treasury to educate the public on the many security features incorporated in the currency.

A Transfer Station for visitors with automobile and bus parking and related infrastructure would be constructed on the WCF property outside the security fence, north of the existing access control gates (Figure 4). The planned intent is to transport visitors from the Transfer Station approximately 300 yards to the Visitors Center on small, 30-person capacity natural gas powered buses. Approximately 30 to 40 bus trips per day are estimated. The visitor parking area adjacent to the Transfer Station would hold approximately 100 cars and 20 buses. The Transfer Station and Visitors Center is designed to accommodate approximately 1,000 visitors per day.

Alternative 3: Transfer Printing to the Washington, D.C. Facility – Existing printing operations would continue without the upgraded capability of two new printing presses. The necessary counterfeit deterrence features would be printed on the currency only at the Washington D.C. facility. This alternative action would require the transfer of partially completed currency between Fort Worth, Texas and Washington, D.C. to complete the currency printing. Additional capacity would have to be added to the Washington, D.C. facility.

Transferring the partially completed currency between Fort Worth, Texas and Washington, D.C. is not considered feasible for a number of significant reasons:

- Concentrating the capacity for the new printing step at just one facility, the Washington, D.C. facility, would negate the security provided by the existing independent capability of the two facilities.

- Transporting the partially completed notes would increase costs and security requirements and add unnecessary steps to the process of printing currency and delivering it to Federal Reserve Banks.

- The capital investment in support of the WCF's independent printing capability would not be used effectively.

- Managing and coordinating regular shipments of currency would be inefficient and introduce obstacles to maintaining quality.

- Washington, D.C., like the Dallas-Fort Worth area, is classified as a *serious nonattainment* air quality area for ozone. Therefore, similar air quality concerns related to increased printing operations would arise in Washington, D.C.

- The Washington, D.C. facility has limited space. Expanding the Washington, D.C. facility in a manner conducive to efficient printing operations beyond what is planned would be significantly more difficult and costly. The main building was constructed in 1914 and the Annex in 1938. Substantial structural modifications would be required to increase the capacity that would be required at the Washington, D.C. facility to produce the currency requirements of the Federal Reserve Board.

Because of the reasons described above, Alternative 3 is not considered feasible or reasonable, and is eliminated from further consideration and comparison with the other alternatives.

3.0 ENVIRONMENTAL CONSEQUENCES

Relevant resources in and around the proposed WCF expansion are examined in this Section. Analyses were conducted to determine the effect each alternative would have on the resource of concern. Effects of the No Action Alternative are described in Section 3.1. Effects of the Proposed Action are described in Section 3.2.

3.1 EFFECTS OF ALTERNATIVE 1: NO ACTION

Under the No Action Alternative, the WCF's baseline emissions would not change, and present operations would continue. However, if the Bureau of Engraving and Printing would pursue implementing the planned counterfeiting deterrence features at another location, there could be a loss of jobs at the WCF resulting from reduced printing operations. Potentially, businesses in the Fort Worth area that provide services and supplies to the WCF would be negatively impacted.

Any reduction in printing operations would proportionately reduce emissions, waste products, traffic, and other environmental impacts at WCF. However, these positive impacts would possibly be offset by corresponding negative impacts at any replacement printing location.

3.1.1 Air Quality

The EPA reclassified the Dallas - Fort Worth area from a moderate ozone nonattainment area to a serious ozone nonattainment area effective March 20, 1998. Ozone is a criteria pollutant for which a National Ambient Air Quality Standard (NAAQS)

has been set, and is photochemically produced in the atmosphere when VOCs are mixed with nitrogen oxides (NO_x), and to a lesser extent with carbon monoxide (CO) in the presence of sunlight.

TNRCC enforces CAA regulations through Texas Administrative Code (TAC) Chapter 122 that limits annual pollutant emissions from stationary sources, such as WCF. Presently WCF is permitted for a maximum allowable emission rate of 43.99 tons of VOCs per year (Attachment A). Actual annual emissions, based upon total operating hours were 17.93 tons in 1999 (Attachment A). A few small sources of emissions at the WCF are exempted from permitting by TNRCC. The Table in Section 3.1.1.1 includes all sources of emissions. With the TNRCC exempted sources, the total maximum allowable annual VOC emissions are 46.31 tons per year (Attachment B).

3.1.1.1 VOC Emissions

The existing WCF operates 12 intaglio, sheet fed printing presses and 8 currency overprinting presses (COPE). VOC emissions from existing operations come from the following sources:

- Intaglio Printing - Inks (less than 12 % VOCs by weight) and naphtha roll washing compound (100 % VOCs). Emissions are collected and routed to a thermal oxidizer.

- COPE Printing - Inks (less than 5 % VOCs by weight) and solvents (100 % VOCs). Emissions are discharged to the atmosphere.

- Waste Pretreatment Tanks - Emissions are discharged to the atmosphere.

- Note Vault - Residual emissions from drying ink are discharged to the atmosphere.

- Solvent Storage - Emissions are discharged to the atmosphere.

- Thermal Oxidizer- Oxidized emissions are discharged to the atmosphere.

- Production Building Fugitives - Emissions are discharged to the atmosphere.

- Boilers - Emissions are discharged to the atmosphere.

The following Table lists all sources of VOC emissions at the WCF. In reporting actual emissions from all permitted sources it summarizes VOC emissions reported in the 1999 Emissions Inventory Report (Attachment A). VOC emissions from sources exempted from permitting were obtained from documentation required for Title V Federal Operating Permit Potential-to-Emit calculations. These VOC emissions were estimated using methods recommended by TNRCC. The **Actual Tons/Year** are based upon actual annual equipment usage. The **Potential Tons/Year** are based upon the

maximum annual operating hours. For permitted facilities the **Actual Tons/Year** and **Potential Tons/Year** are both based on 1993 measured hourly emission rates provided in Attachments A and B. The WCF has never operated at the maximum annual TNRCC permitted operating hours and has never emitted the **Potential Tons/Year** of VOCs.

EXISTING FACILITY VOC EMISSIONS
(Compiled from 1999 Annual Emissions Report and
1993 Potential to Emit Calculations)

Emission Point Number	Description	Actual Tons/Year [1]	Potential Tons/Year [1]
EPN 4	VAULT EXHAUSTER	0.9127	2.26
EPN 8	WASTE PRETREATMENT TANKS	4.4184	10.95
EPN 12	PRODUCTION BUILDING FUGUTIVES	8.8783	22.00
EPN 13	THERMAL OXIDIZER STACK	2.8211	6.99
EPN 9A	BOILER NO.1	0.1984	0.79
EPN 9B	BOILER NO.2	0.5819	0.79
EPN 9C	BOILER NO.3	0.1210	0.21
-	ABSORPTION CHILLER NO.1 (***EXEMPT***) [2]	***0.2452***	0.2452
-	ABSORPTION CHILLER NO.2 (***EXEMPT***) [2]	***0.2452***	0.2452
-	FIRE WATER PUMP (***EXEMPT***) [2]	***0.0101***	0.0101
-	DIESEL GENERATORS (***EXEMPT***) [2]	***0.1814***	0.1814
-	WEIGH STATION SCRUBBER (***EXEMPT***) [2]	***1.1180***	1.1180
-	GENERAL EXHAUST (***EXEMPT***) [2]	***0.2295***	0.2295
-	GENERAL EXHAUST (***EXEMPT***) [2]	***0.2295***	0.2295
-	BUCKET WASHER EXHAUST (***EXEMPT***) [2]	***0.0580***	0.0580
-	BUCKET WASHER EVAPORATOR (***EXEMPT***) [2]	***0.0036***	0.0036
	TOTAL VOCs/year	**20.2523**	**46.3105**

[1] Contains sources of emissions exempted from TNRCC reporting requirements in the 1999 Annual Emissions Report (Attachment A). Therefore, these totals are somewhat greater.
[2] Potential to Emit data are reported as Actual.

The 20.2523 total tons per year of VOCs is a combination of actual 1999 data and estimated potential to emit data and therefore is somewhat overstated. The 20.2523 tons is also greater than typically emitted annually because 1999 was an unusual year. The U.S. Treasury anticipated an exceptionally high demand for U.S. currency throughout the world because of the expected year 2000 related computer crashes and increased currency production significantly during 1999. Emissions, including VOCs are directly related to currency production and more VOC emissions were generated in 1999 than are typical.

Intaglio printing is the major source of VOCs at WCF. Exhaust from the intaglio printing presses are treated by a thermal oxidizer. The VOC capture efficiency of the press exhaust hoods at the intaglio presses and ink drums was measured at 84.1 percent.

The exhaust hoods collect emissions and route them through ducts into a natural gas-fired thermal oxidizer with a measured destruction efficiency of 89.7 percent.

3.1.1.2 Non-VOC Emissions

Several other WCF air pollutants are regulated by TNRCC. However, their annual emission rates are relatively minor. The support functions that create emissions, other than VOCs, include:

- An electroplating installation at the WCF, which produces the currency plates. The process consists of three 350-gallon nickel sulfamate baths and three 350-gallon chromic acid baths. Fumes are collected and ducted to two scrubbers for removal of metals.

- Paper trim and off spec currency notes are captured and shredded into chips 1/8 inch by 3/8 inch. A baghouse is provided to reduce particulate emissions.

- The process of coating the intaglio press wiping roller with polyvinyl chloride (PVC) plastisol generates hydrochloric acid (HCl) vapors. Fumes are collected and vented to the atmosphere through carbon filters.

- The natural gas boilers are permitted to operate up to 720 hours per year on fuel oil. Annual fuel oil operation has been considerably less. Both combustion processes produce regulated air pollutants (Attachment A).

- Vehicle emissions at the currency loading/unloading cells and emissions from the WCF natural gas usage.

- Vehicular traffic emissions from approximately 800 total employees (including contractors) who commute to and from work.

3.1.2 SURFACE AND GROUNDWATER WATER QUALITY

Presently local ground water is not affected by wells, pumping or other aquifer penetrations. In general, the WCF operations have no significant effect on surface water or groundwater. Surface water runoff from parking lots is a source of pollution that would continue under the No Action Alternative.

3.1.3 TRANSPORTATION

The plant presently employs approximately 800 total workers (including contractors) that commute by vehicle daily in three shifts. Shipment of supplies and equipment are received daily. Shipments of currency occur periodically. The present plant operations would continue under the No Action Alternative. Observations made during one shift change did not indicate significant traffic congestion.

3.1.4 HAZARDOUS AND NON-HAZARDOUS SOLID WASTE

The intaglio printing process presently used is responsible for most of the hazardous and non-hazardous waste generated at the facility. Much of the ink used in intaglio printing is either spent waste or is recycled. The WCF will continue to create and ship wastes that are generated on-site.

3.1.5 IONIZING AND NON-IONIZING RADIATION

There are no sources of radiation at WCF.

3.1.6 ENDANGERED SPECIES AND BIOTIC RESOURCES

The 1987 EA determined that endangered species or other natural biologic resources would not be significantly affected by the construction and operation of the WCF. A recent response from the U.S. Fish and Wildlife Service reconfirmed the evaluation for operations that would continue under the no action alternative (Attachment C).

3.1.7 WETLANDS AND FLOODPLAINS

Under the No Action Alternative, present conditions would continue. There are no significant impacts to wetlands and floodplains (Attachment C).

3.1.8 HISTORICAL AND ARCHEOLOGICAL SITES

Based on a cultural resources survey carried out for the 1987 EA, the WCF is not operating on or near any sites eligible for nomination to the National Register of Historic Places or for designation as State Archeological Landmarks. A recent response from the Tarrant County Historical Commission confirmed the previous finding (Attachment D).

3.1.9 LAND USE

The present land use for the 100-acre WCF property is zoned Community Facility (CF). The surrounding property is zoned Business Park (IP). The land use is expected to remain as it presently exists under the No Action Alternative.

3.1.10 SOCIOECONOMIC FACTORS

The No Action Alternative will not affect the present operations at the WCF and the economic benefits resulting from the continued employment of approximately 800 individuals from the local area.

3.1.11 HEALTH AND SAFETY

The WCF presently operates with a Health and Safety Plan and has established industrial hygiene procedures that will remain in effect.

3.1.12 ENERGY AND UTILITIES

The WCF's energy consumption and utility use will remain at their present trends under the No Action Alternative.

3.1.13 MUNICIPAL WASTEWATER TREATMENT

Wastewater pretreatment at the facility will remain at the present rate under the No Action Alternative. The facility is permitted to discharge industrial wastewater to the sanitary sewer. The sewer effluent is treated at the Village Creek Wastewater Treatment Facility.

3.2 EFFECTS OF ALTERNATIVE 2: PROPOSED ACTION – UPGRADE PRINTING CAPABILITY AT THE FACILITY

Under the Proposed Action Alternative, construction activities related to the facility expansion would create emissions and other waste products. Once the construction is completed, the additional printing operations at WCF would increase baseline emissions and other waste products. The local economy may benefit from a small increase in jobs and local merchants and service providers may notice a small increase in business. The Proposed Action Alternative will permit the Bureau to deliver currency with additional counterfeit deterrent features as required by the Federal Reserve Board.

3.2.1 EFFECTS ON AIR QUALITY

Construction of the facility expansion will create emissions primarily from construction equipment and vehicle internal combustion engine exhausts. These emissions and other waste products will be typical of any industrial construction site and are not considered significant.

VOC emissions generated from the two new presses are expected to total 4.88 tons per year as presented in the facility's request for an amendment to the existing TNRCC air permit. The total anticipated emissions are based on existing offset press ink usage at the Bureau's Washington, DC facility, and the press manufacturer's estimate. This would increase total actual VOC emissions at the facility to approximately 25.13 tons per year.

The Proposed Action Alternative does not qualify as a significant increase, nor does it cause the facility to be a Major Source. The Bureau of Engraving and Printing as well as WCF management are committed to keeping the facility's total VOC emissions below the Major Source threshold of 50 tons/year. If necessary, additional mitigation

measures could be implemented under the proposed alternative. In addition to the printing presses, the following existing sources of VOCs and other emissions could be affected under the proposed alternative:

- **Shredder** - Printing spoilage and paper trimmed from the edges of currency sheets is vacuum conveyed to a shredder. A baghouse controls particulate matter released to the atmosphere from the shredding operation. The 1999 total suspended particulates (TSP) emission rate was 0.1431 tons per year. Operating the two additional offset presses in the Proposed Action Alternative will increase the amount of shredded paper generated at the facility. Initial operation of a similar press at the Bureau's Washington, D.C. facility shows an increase of one percent to two percent in waste paper generated. Therefore, with the additional particulates from the two new presses the TSP could increase to 0.150 tons per year. The TNRCC permitted annual limit for TSP is 0.35 tons per year. Based on these estimates, even with a large margin of error, the proposed action would have a negligible effect on air quality.

- **Vault Exhauster** - Emissions from the Federal Reserve vault, caused by volatilization of the VOCs in the ink, are proportional to currency storage. Based on ink VOC content and ink usage at the Washington, D.C. facility, it is estimated that the increase of VOCs that may result is a maximum of 12.1 percent.

  The 1999 VOC emissions from the vault exhauster were 0.913 tons per year, which would increase to a maximum of 1.023 tons per year, well below the maximum TNRCC permitted emissions rate of 2.26 tons per year. The proposed action is considered to add insignificantly to the vault exhauster emissions.

- **Production Building Fugitives** - The actual 1999 production building fugitive emissions were 8.8783 tons per year. The two new printing presses are estimated to have a maximum emission rate of 4.88 tons per year and would raise the actual annual production building fugitive emissions to approximately 13.8 tons per year. The existing TNRCC established maximum emissions for the production building fugitives with the present number of intaglio and COPE printing presses is 22 tons per year, well above the anticipated new fugitive emission quantity.

3.2.2 STORM WATER RUNOFF, SURFACE AND GROUNDWATER WATER QUALITY

Building and parking lot storm water runoff from the WCF expansion will be directed to existing drainages on the south and west sides of the property. The additional parking area and roads for the Visitors Center and Transfer Station will add less than 50 percent additional area to the existing paved areas. Surface water runoff from these areas can be directed to existing drainage. The Visitors Center parking lot covers approximately 63,000 square feet on relatively level grade. Observations indicated that there are no present erosion problems on the perimeter of the approximately 132,600 square foot

existing parking lot; the new parking lot runoff is not expected to create erosion problems. The new roof area over the proposed WCF expansion, including the Transfer Station and Visitors Center, will add less than 20 percent to the present roof covered area and is not anticipated to increase the runoff to cause erosion problems. The roof run-off goes into an underground collection system that empties into the City of Fort Worth storm water system.

The WCF expansion does not create conditions that affect groundwater where groundwater is defined as phreatic water, or the entire saturated zone. The surface area of the combined pavement and buildings do not cover sufficient area to affect groundwater recharge. There are no discharges to surface water or groundwater from existing or proposed WCF operations.

Other than parking lot and roadway pollutants, the proposed WCF expansion will not add contaminants to either surface water or groundwater. The proposed action will have no significant effect on storm water runoff, surface water, or groundwater.

3.2.3 TRANSPORTATION

The Proposed Action would increase vehicular traffic from additional workers and contractors required for the increased printing operations and Visitors Center oprations. Approximately 47 additional workers would be required to operate the new printing presses, and provide security and guides at the Visitors Center and Transfer Station. Presently the WCF employs approximately 800 workers and contractors. The traffic created by the additional 47 employees would not overburden the existing infrastructure either at the WCF or on the roads leading to WCF. Service vehicle traffic is not expected to increase. The WCF is located in a rural area and traffic congestion is not considered a problem.

The Visitors Center is planned to accommodate 1,000 visitors per day. There are planned spaces for 100 cars and 20 buses. Access to the visitors parking area is considered adequate without major modifications to Blue Mound Road. Present peak traffic loads are handled adequately during shift changes. The visitors are not expected to arrive in groups as large as the employees during a shift change. Natural gas powered buses are planned to transport the visitors between the Transfer Station and the Visitors Center. The impact of the visitors' autos and buses traveling the Fort Worth area in transit to the WCF is unknown. However, in view of the planned daily number of visitors, it is not expected to be a significant impact.

The construction project is a routine commercial/industrial project. Traffic during construction is expected to be similar to that which would be generated by any construction project of this size. Some interruptions in traffic from large slow moving trucks and equipment are expected, but not considered significant.

Transportation requirements related to ongoing WCF operations are not expected to change measurably because of the upgraded printing capability. Since the amount of

currency printed is not expected to increase, deliveries and shipments will remain about the same as they are currently.

3.2.4 NOISE AND VIBRATION

Lithographic printing is considerably quieter than intaglio printing. Noise from printing operations is not expected to be detrimental to workers or visitors. The visitors will not be subjected to excess noise because the tour gallery is completely separated from the currency production areas. Although noise level measurements in the proposed visitors area have not been performed, noise is not expected to be a significant impact.

Noise caused during the construction process is expected to be typical for the construction activities related to an industrial building. This expansion does not have any unusual construction activities that would create excess noise. The nearest residential area is approximately one mile south of the WCF and is not expected to be impacted.

Vibrations from operations are not significant and would not increase significantly because of the expansion. Noise and vibration are not noticeable outside of the building. No increases are expected.

3.2.5 HAZARDOUS AND NON-HAZARDOUS SOLID WASTE

The Proposed Action will add small quantities to existing hazardous and non hazardous waste streams. No new additional waste streams are anticipated. Although exact estimates have not been calculated, wastes from the lithographic printing process are small compared to the existing intaglio printing. The waste streams are expected to include: inks, solvents, paper, cleaning solutions, miscellaneous debris, and waste oil which may be suitable for recycling.

The WCF is well equipped to handle hazardous and non hazardous waste resulting from printing operations. The existing waste storage area has abundant capacity.

3.2.6 IONIZING AND NON-IONIZING RADIATION

There are no radiation sources related to the existing operations or the proposed expansion.

3.2.7 ENDANGERED SPECIES AND BIOTIC RESOURCES

There are no known threatened or endangered species habitats on the WCF property or contiguous land. The entire WCF property perimeter has two high security fences with a gravel area in between with motion detectors to prevent human access. The property is also somewhat inaccessible to most species except birds and perhaps small rodents. An examination of the roof area did not detect any nesting areas for birds. An inquiry to the U.S. Fish and Wildlife Service resulted in a response stating, “The described action

is not likely to adversely affect threatened or endangered species, nor significantly impact wetlands or other important wildlife resources" (Attachment C).

3.2.8 WETLANDS AND FLOODPLAINS

The proposed action is entirely within the existing property line of the WCF. The area for the proposed expansion is cultivated with lawn grasses and mowed. The area has little noticeable topographic relief. The 100-acre WCF property is on a small hill. The mapped elevation at the location of the proposed expansion is 720 feet and gradually declines to approximately 700 feet at the property line on all sides (Figure 6). Neither the proposed expansion area nor the 100-acre WCF is located within a floodplain. The nearest floodplain as identified in the 1987 EA is shown on Figure 7. A response from the U.S. Fish and Wildlife Service indicated that wetlands would not be significantly impacted (Attachment C).

3.2.9 HISTORICAL AND ARCHEOLOGICAL SITES

Representatives of the Tarrant County Historical Commission were contacted regarding the status of land around the proposed WCF expansion. The status of the land remains unchanged; there are no historical places or archeological landmarks (Attachment D).

3.2.10 LAND USE

The WCF is located in an area that is a mix of rangeland, farms, and industry. The general area is zoned Community Facilities (CF) and Industrial Park (IP). The nearest residential area, and school is approximately one mile south of the WCF. The visual impact of the addition, including the Visitors Center, Transfer Station, and parking area will be minimal. The Proposed Action will not affect recreational land use, open space, wilderness areas, or Indian land. There will be no change in land use with the construction and operation of the proposed expansion.

3.2.11 SOCIOECONOMIC FACTORS

The WCF expansion will provide jobs for approximately 47 people. The Visitors Center and Transfer Station will employ approximately 10 tour operators. The production area will employ approximately 10 press operators and 10 printing plant workers. An additional 17 police officers will also be employed.

The Visitors Center is expected to provide an economic boost to local businesses and perhaps provide opportunities for new business ventures. Although these economic expectations are individually small, they are positive, and will be an asset to the local community.

The Visitors Center is considered a positive impact, as it will allow the public to observe and learn many aspects of printing and circulation of U.S. currency, thereby educating the public in matters considered very important by the Department of Treasury. It may

be possible for schools to arrange tours. U.S. currency is a significant part of our country's history and is the world standard for stability and security. According to an article in the Star-Telegram (Attachment E) the President and Chief Executive of the Fort Worth Convention and Visitors Bureau has been an advocate of a visitor's center at the WCF.

3.2.12 HEALTH AND SAFETY

The existing WCF has a Health and Safety Plan and an assigned Health and Safety staff. The additional printing presses and related operations may require that minor modifications to the procedures in the existing Health and Safety Plan be made.

Worker exposure from VOCs is not considered to pose a health hazard at the concentrations expected. The facility employs industrial hygienists that can quickly assess if engineering controls are warranted or if workers may require personal protective equipment.

The WCF expansion should not result in any unique or unforeseen health or safety hazard. The Bureau of Engraving and Printing has extensive working knowledge of the equipment and processes incorporated in this project. This includes the operation of the Washington, D.C. visitors center, which handles more than twice the number of visitors projected at the WCF.

3.2.13 ENERGY AND UTILITIES

The increase in energy and utilities for the additional building space and the printing operation will be considerably less than the proportional increase in space and printing presses. Based upon the proposed equipment, the additional energy demand for the expansion is typical for industrial facilities and will not create a significant environmental impact.

3.2.14 MUNICIPAL WASTEWATER TREATMENT

There is no requirement for sumps or waste lines from the new presses to the wastewater pretreatment facility. No sumps or drain lines will be installed with the new printing presses. The proposed action would not result in an increase in the quantity of pretreated wastewater discharged to the municipal sewer.

The City of Fort Worth Pretreatment Services Division Senior Specialist assigned to the WCF stated that no permit modification would be required. A permit modification is not required unless the wastewater discharge increased over 20 percent and such an increase is not expected. Wastewater from WCF is presently monitored for pollutant concentrations. The Pretreatment Services Division permit lists specific limits of pollutant concentrations in the wastewater. The same limits will apply to the expanded facility.

The Visitors Center and Transfer Station will have approximately 50 plumbing fixtures. The additional employees and visitors are not expected to significantly increase sanitary waste.

3.2.15 UNAVOIDABLE ADVERSE EFFECTS AND CUMULATIVE EFFECTS

The increase in emissions resulting from the facility expansion are not considered significant in context of the impact to the Fort Worth area, the immediate area contiguous to WCF, or to the WCF workers. The effects on the human environment will not likely be noticed or measurable.

The only environmental impact that will be assessable is the additional burden placed on air quality in the area. The Fort Worth area does not presently meet ozone national ambient air quality standards. The increase of VOCs is not a significant quantity in relation to the VOCs emitted from area stationary and mobile sources. However, any VOC contributions that may result in the formation of additional ground level ozone are adverse.

The cumulative environmental effect of all contributions related to the WCF expansion is not considered significant. The effected areas described elsewhere in Section 3.2 do not lead to a compounding negative environmental impact.

The creation of jobs and business opportunities, and the opportunities for the public to visit the WCF are positive, but not expected to create a major economic or societal benefit. The results obtained from the currency counterfeiting deterrent features are expected to be a significant technical measure against future efforts to counterfeit U.S. currency.

3.2.16 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The WCF is one of two facilities that print U.S. currency. Since U.S. currency is the most respected in the world for its stability and value, it is likely that the worldwide demand will be long term. The resources committed for upgrading the counterfeiting deterrent features and for the Visitors Center are likely to be used well into the future.

3.2.17 CONFORMITY DETERMINATION

Under Section 110 of the Clean Air Act, each state must either develop air pollution regulations and control strategies to ensure that its air quality meets the NAAQS established by the EPA, or the state must have plans and strategies to ensure that NAAQS will be met by a certain date. NAAQS are set for criteria pollutants, such as ozone, that are known to be harmful to human health and welfare. Each state must provide these regulations and control strategies to the EPA for approval and incorporation into the federally enforceable State Implementation Plan (SIP). Texas has a federally approved SIP, which protects air quality and has emission control plans for nonattainment areas such as Fort Worth. TNRCC enforces the EPA-approved

regulations within the SIP. TNRCC must meet EPA established deadlines for meeting emission control plan milestones specified in the SIP.

Section 101.30 of the TNRCC regulations, *Conformity of General Federal Actions to State Implementation Plans*, states that, "no . . . agency . . . of the federal government shall engage in; support in any way or provide financial assistance for; license or permit; or approve any activity which does not conform to an applicable SIP." Because this proposed expansion is in a nonattainment area and is not covered under the Federal Transit Act, a conformity determination would be required if the total direct and indirect VOC emissions caused by the federal action would equal or exceed 50 tons/year. Under this regulation, the WCF expansion itself would have to generate emissions equal to, or exceeding 50 tons/year. Neither the proposed alternative of expanding the WCF, nor the No Action Alternative would trigger the emission levels to require a conformity analysis, therefore none is required.

4.0 LIST OF AGENCIES AND PERSONS CONSULTED

1) City of Fort Worth Water Department, Margaret Ford, Senior Specialist, Pretreatment Services Division, 817-871-8291

2) Tarrant County Archives, Historical Commission, Susan Pritchett, Archivist, 817-884-3272

3) TNRCC, Orlando Vasquez, Air Permit Reviewer 512-239-1309

4) TNRCC, Craig Richardson, Unit Leader, Coatings and Permit Review Group, 512-239-1307

5) TNRCC, Alan Henderson, NEPA Specialist, 512-239-1510

6) TNRCC, Ken Gathright, Air Quality Planner, Office of Environmental Policy and Assessment, 512-239-0599

7) U.S. Fish and Wildlife Service, Arlington, Texas, Cindy Gabrielsen, Biologist, 817-277-1100

REFERENCES

Environmental Review: Environmental Information Record, Proposed Western Facility Bureau of Engraving and Printing, U.S. Treasury Department, Fort Worth, Texas, City of Fort Worth in cooperation with the Bureau of Engraving and Printing, March, 1987

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Emissions Inventory Source Testing Report, Western Currency Facility, Fort Worth Texas, March 1994

40 CFR Parts 1500 – 1508

U.S. Treasury Directive Directive 75-02, September 25, 1990

Texas State Implementation Plan

ATTACHMENTS

ATTACHMENT A

ATTACHMENT B

ATTACHMENT C

ATTACHMENT D

ATTACHMENT E